

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF OKLAHOMA**

STATE OF OKLAHOMA,	)	
	)	
Plaintiff,	)	
	)	
v.	)	Case No. 05-cv-329-GKF(PJC)
	)	
TYSON FOODS, INC., et al.,	)	
	)	
Defendants.	)	

**STATE OF OKLAHOMA'S MOTION IN LIMINE TO PRECLUDE  
OPINION TESTIMONY OF DEFENDANTS' WITNESS ANDY DAVIS,  
Ph.D. AND INTEGRATED BRIEF IN SUPPORT THEREOF**

Plaintiff, the State of Oklahoma ("the State"), pursuant to Fed. R. Evid. 104 and 702, and *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), respectfully moves this Court for an order in limine precluding the opinion testimony of Defendants' witness Andy Davis, Ph.D. ("Dr. Davis") for the reasons set forth below.

**I. Introductory Statement**

Dr. Davis opines that the State's sampling data does not demonstrate that the Cargill Defendants' poultry waste has had an effect on the waters of the IRW. As the basis for this opinion, Dr. Davis attempts to tie specific fields to specific State sampling data. The fatal flaw in Dr. Davis's methodology is that he did not confirm that poultry waste -- let alone poultry waste from the Cargill Defendants' birds -- had in fact been land applied on the specific fields to which he was attempting to tie specific State sampling data. As such, Dr. Davis's methodology, as well as the opinions that spring therefrom, must be excluded as they do not meet the standards of Rule 702 and *Daubert*.

## II. Facts

Dr. Davis evaluated the State's sampling data against specific fields in an effort to draw a conclusion as to whether poultry waste from the Cargill Defendants' birds has had any effect on phosphorus levels in the waters of the IRW. *See* Ex. 1, p. ES-1 (Davis Report).

The specific fields that formed the basis for Dr. Davis's evaluation were those fields adjacent to the poultry houses where the Cargill Defendants' birds have been raised. *See* Ex. 2 (Davis Depo., pp. 32-33).

Dr. Davis freely admits, however, not only that he did not have any land application records to rely upon to know whether in fact poultry waste from the Cargill Defendants' birds had been land applied on those fields that formed the basis for his evaluation, but also that he made no inquiry as to whether poultry waste from the Cargill Defendants' birds' poultry waste had been land applied on those fields. *See* Ex. 2 (Davis Depo., pp. 33, 83-84, 85-86). Further, Dr. Davis admits that he did not review the Oklahoma Department of Agriculture, Food and Forestry files regarding the Cargill Defendants' growers' land application records or any of the nutrient management plans so as to inform his evaluation. *See* Ex. 2 (Davis Depo., p. 83). Yet further, Dr. Davis also admits that the decision to use fields adjacent to the Cargill Defendants' poultry houses as the focal point of his evaluation was made by the Cargill Defendants' legal counsel. *See* Ex. 2 (Davis Depo., pp. 81-82).

Dr. Davis also used the wrong data for sediment samples from the State's database to calculate the baseline that he employed to determine whether poultry waste from the Cargill Defendants' birds was impacting phosphorus levels in the IRW. *See* Ex. 3, (Olsen Decl., ¶ 5)(the

method used by Dr. Davis was erroneous and contrary to that “universally used by all scientists.”)

### III. Legal Standard

Federal Rule of Evidence 702 provides:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Thus, "Fed. R. Evid. 702 imposes on the trial judge an important 'gate-keeping' function with regard to the admissibility of expert opinions." *Ralston v. Smith & Nephew Richards, Inc.*, 275 F.3d 965, 969 (10th Cir. 2001).

A court must ensure that the scientific testimony being offered is "not only relevant, but reliable." *See Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 589 (1993).<sup>1</sup> "To be reliable under *Daubert*, an expert's scientific testimony must be based on scientific knowledge . . . ." *Dodge v. Cotter Corp.*, 328 F.3d 1212, 1222 (10th Cir. 2003). The Supreme Court has explained that the term "scientific" "implies a grounding in the methods and procedures of science." *Daubert*, 509 U.S. at 590. Likewise, it has explained that the term "knowledge" "connotes more than subjective belief or unsupported speculation." *Id.* Thus, "in order to qualify as 'scientific knowledge,' an inference or assertion must be derived by the scientific method.

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<sup>1</sup> The Supreme Court held in *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999), that the gatekeeping function set out in *Daubert* applies not only to expert testimony based on scientific knowledge, but also expert testimony based upon technical or other specialized knowledge -- *i.e.*, it applies to all expert testimony.

Proposed testimony must be supported by appropriate validation -- *i.e.*, 'good grounds,' based on what is known." *Id.*

The Supreme Court has set forth four non-exclusive factors that a court may consider in making its reliability determination: (1) whether the theory or technique can be (and has been) tested, *id.* at 593; (2) whether the theory or technique has been subjected to peer review and publication, *id.*; (3) the known or potential rate of error and the existence and maintenance of standards controlling the technique's operation, *id.* at 594; and (4) whether the theory or technique has general acceptance in the scientific community, *id.* The inquiry is "a flexible one." *Id.*; *see also id.* at 593 ("[m]any factors will bear on the inquiry, and we do not presume to set out a definitive checklist or test"); *Dodge*, 328 F.3d at 1222 ("the list is not exclusive"). "The focus [of the inquiry]. . . must be solely on principles and methodologies, not on the conclusions that they generate." *Daubert*, 509 U.S. at 595.

To be relevant, the testimony must "assist the trier of fact to understand the evidence or to determine a fact in issue." Fed. R. Evid. 702. This consideration has been described as one of "fit." *See Daubert*, 509 U.S. at 591. "Fit' is not always obvious, and scientific validity for one purpose is not necessarily scientific validity for other, unrelated purposes." *Id.*

In sum, "[t]he objective of [the gatekeeping] requirement is to ensure the reliability and relevancy of expert testimony. It is to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Kumho Tire*, 526 U.S. at 152.

Finally, the party proffering the expert scientific testimony bears the burden of establishing admissibility under the Federal Rules of Evidence and *Daubert*. See *Ralston*, 275 F.3d at 970 fn. 4.

#### **IV. Argument**

The failure to determine whether poultry waste from the Cargill Defendants' birds had in fact been land applied on the specific fields to which he was attempting to tie specific State sampling data makes Dr. Davis's opinions both unreliable and irrelevant.

Dr. Davis's opinions are unreliable because the methodology he used does not have a grounding in the methods and procedures of science. Dr. Davis should have determined whether the Cargill Defendants' poultry waste had in fact been applied on the specific fields he was trying to tie to specific State sampling data. An analysis of whether poultry waste is applied upstream of a sampling location is essential for an investigator's evaluation of whether waste from a poultry growing operation has impacted a river or stream. See Ex. 4 (Loftis Decl. at ¶ 15). Dr. Davis simply speculated that this was the case. Such speculation does not satisfy the reliability prong of *Daubert*. Moreover, the method used by Dr. Davis to determine sediment baseline phosphorus concentrations was unreliable because he used data for wet weight concentrations rather than dry weight concentrations. See Ex. 3, Olsen Decl. at ¶ 5.

Dr. Davis's opinions are irrelevant because without knowing that the Cargill Defendants' poultry waste had in fact been applied on the specific fields he was trying to tie to specific State sampling data, Dr. Davis's evaluation proves nothing. Opining that poultry waste from the Cargill Defendants has no effect on the waters of the IRW when one does not even know if

poultry waste was land applied on the specific fields on that provide the basis for that evaluation simply does not assist the trier of fact to understand the evidence or to determine an issue of fact.

**V. Conclusion**

WHEREFORE, in light of the foregoing, this Court should enter an order in limine precluding the opinion testimony of Defendants' witness Dr. Andy Davis.

Respectfully Submitted,

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